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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,324	09/26/2001	Lee R. Dishert	MATP-611US	1321

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EXAMINER	
SKED, MATTHEW J	

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/963,324	DISHERT, LEE R.	
	Examiner	Art Unit	
	Matthew J. Sked	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 16-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1-9, 13, 14 and 16-18 have been considered but are moot in view of the new ground(s) of rejection, necessitated by amendment.

2. The indicated allowability of claims 10-12 is withdrawn in view of the newly discovered reference(s) to Allen et al. (U.S. Pat Pub. 2002/0149705). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3, 7, 8, 13-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luchaup (U.S. Pat. Pub. 2002/0143555A1) in view of Kroon et al. (U.S. Pat. 5,680,506) and taken in further view of Chang (U.S. Pat Pub. 2003/0014754A1).

As per claim 1, Luchaup teaches a remote control system for translating an utterance of an operator to a control parameter of an electronic device comprising:

a remote control unit (Fig. 1, element 10), including,

i. an audio input for receiving the utterance (microphone, paragraph 32); and

ii. a transmitter operably linked to the audio input for providing a transmission signal corresponding to the utterance (transmits an audio input signal, paragraph 25);

a relay station separate from the remote control unit and electronic device, responsive to the transmission (Fig. 1, element 50), the relay station including,

i. a receiver for recovering audio signals representing the utterance from the transmission signal (audio input signal is received by the host receiver, paragraph 26);

ii. a speech recognition module for translating the audio signals into a sequence of words (voice recognition processor, paragraph 26); and

iii. a memory for translating the sequence of words into the control parameter which is then provided to the electronic device (voice recognizer generates a command signal from the audio input signal, paragraph 26);

wherein the control parameter is provided by the relay station to the electronic device enabling hands-free remote control of the electronic device (control signal is transmitted directly to the appliance from the host system, paragraph 31).

Luchaup does not teach compressing the utterance at the remote control unit and decompressing the utterance at the relay station.

Kroon teaches a system for speech command recognition that compresses the speech input at the transmission system, then decompresses the signal at the receiver

for speech recognition and subsequently forwards the recognized speech to a voice operated system (col. 8, line 13 to col. 10, line 2 and Figs. 3(a) and 3(b)).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup to compress the utterance at the transmission unit and decompress the utterance at the receiver as taught by Kroon because it reduce the amount of information sent hence decreasing transmission time.

Kroon teaches an analog to digital converter for digitizing the utterance and subsequently compressing and coding the digitized utterance (Fig. 3(a), elements 310, 325 and 330) but neither Luchaup nor Kroon teach the codec compresses the utterance directly from an analog to digital converter.

Chang teaches a system for communications between a remote control device and an electronic device (television) wherein the voice input is directly ADPCM coded after the A/D conversion (Fig. 2, elements 26 and 28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup and Kroon to directly compress the digitized utterance as taught by Chang because this would cut out the intermediary steps of the transmission cycle hence reducing calculations and giving a lower transaction cost to the transmission.

5. As per claim 3, Luchaup teaches the electronic device is operable linked to the relay station to receive the control parameter (control signal is transmitted directly to the appliance from the host system, paragraph 31).

6. As per claim 7, Luchaup teaches a transmitter, on the relay station, for providing the control parameter to a remote control input port of the electronic device (control signal is transmitted directly to the appliance from the host system, paragraph 31).

7. As per claim 8, Luchaup teaches a receiver, on the remote control unit, for receiving transmissions from the relay station (remote control contains a second receiver to receive the control signal from the host system, paragraph 32).

8. As per claim 13, Luchaup teaches a remote control system for translating an utterance of an operator to a control parameter of an electronic device comprising:

a remote control unit (Fig. 1, element 10), including,

i. an audio input for receiving the utterance (microphone, paragraph 32); and

ii. a transmitter operably linked to the audio input for providing a transmission signal corresponding to the utterance (transmits an audio input signal, paragraph 25);

a relay station separate from the remote control unit and electronic device, responsive to the transmission (Fig. 1, element 50), the relay station including,

i. a receiver for recovering audio signals representing the utterance from the transmission signal (audio input signal is received by the host receiver, paragraph 26);

ii. a speech recognition module for translating the audio signals into a sequence of words (voice recognition processor, paragraph 26);

iii. a memory including a plurality of look-up tables each for translating the sequence of words into the control parameter which is then provided to the electronic device (voice recognizer generates a command signal from the audio input signal, this process would inherently have a some type of correspondence table in memory to convert from a recognized word to a command, paragraph 26);

iv. a processor which selects one of the look-up tables to be used to generate the control parameters responsive to the translated words (each device would inherently have different commands to operate it hence a different correspondence table which would be selected based upon the extracted appliance identity, paragraph 26); and

v. a transmitter, which provides the control parameters from the selected look-up table to the respective electronic device (control signal is transmitted directly to the appliance from the host system, paragraph 31).

Luchaup does not teach compressing the utterance at the remote control unit and decompressing the utterance at the relay station.

Kroon teaches a system for speech command recognition that compresses the speech input at the transmission system, then decompresses the signal at the receiver for speech recognition and subsequently forwards the recognized speech to a voice operated system (col. 8, line 13 to col. 10, line 2 and Figs. 3(a) and 3(b)).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup to compress the utterance at the

transmission unit and decompress the utterance at the receiver as taught by Kroon because it reduce the amount of information sent hence decreasing transmission time.

Kroon teaches an analog to digital converter for digitizing the utterance and subsequently compressing and coding the digitized utterance (Fig. 3(a), elements 310, 325 and 330) but neither Luchaup nor Kroon teach the codec compresses the utterance directly from an analog to digital converter.

Chang teaches a system for communications between a remote control device and an electronic device (television) wherein the voice input is directly ADPCM coded after the A/D conversion (Fig. 2, elements 26 and 28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup and Kroon to directly compress the digitized utterance as taught by Chang because this would cut out the intermediary steps of the transmission cycle hence reducing calculations and giving a lower transaction cost to the transmission.

9. As per claim 14, Luchaup teaches speech recognition module includes a protocol, responsive to a portion of the utterance for providing a command to the processor to select the one of the look-up tables and the processor is configured to receive the command to select the one of the plurality of look-up tables to allow use of the one of the look-up tables in controlling the corresponding device (each device would inherently have different commands to operate it hence a different correspondence table which would be selected based upon the extracted appliance identity, paragraph 26).

10. As per claim 17, Luchaup teaches a method of translating an utterance of an operator to a control parameter of an electronic device, comprising:

converting an utterance into a modulated transmission signal (transmits an audio input signal hence inherently modulating it, paragraph 25);

receiving the transmission signal at a relay unit, the relay unit being separate from the remote control unit and the electronic device (audio input signal is received by the host receiver, paragraph 26);

recovering audio signals representing the utterance from the modulated transmission signal (host receiver would inherently recover the audio signal from the transmitted signal, paragraph 25 and Fig. 1, element 50);

processing the audio signals to recognize the words included in the utterance (voice recognition processor, paragraph 26); and

translating the recognized words into the control parameter (voice recognizer generates a command signal from the audio input signal, paragraph 26);

providing the control parameter from the relay station to the electronic device enabling hands-free remote control of the electronic device (control signal is transmitted directly to the appliance from host system, paragraph 31).

Luchaup does not teach compressing the utterance at the remote control unit and decompressing the utterance at the relay station.

Kroon teaches a system for speech command recognition that compresses the speech input at the transmission system, then decompresses the signal at the receiver

for speech recognition and subsequently forwards the recognized speech to a voice operated system (col. 8, line 13 to col. 10, line 2 and Figs. 3(a) and 3(b)).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup to compress the utterance at the transmission unit and decompress the utterance at the receiver as taught by Kroon because it reduce the amount of information sent hence decreasing transmission time.

Kroon teaches an analog to digital converter for digitizing the utterance and subsequently compressing and coding the digitized utterance (Fig. 3(a), elements 310, 325 and 330) but neither Luchaup nor Kroon teach the codec compresses the utterance directly from an analog to digital converter.

Chang teaches a system for communications between a remote control device and an electronic device (television) wherein the voice input is directly ADPCM coded after the A/D conversion (Fig. 2, elements 26 and 28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup and Kroon to directly compress the digitized utterance as taught by Chang because this would cut out the intermediary steps of the transmission cycle hence reducing calculations and giving a lower transaction cost to the transmission.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luchaup in view of Kroon and taken in further view of Chang and Douglas, cited in the previous action.

Luchaup, Kroon and Chang do not teach the remote control unit is an operator headset having a microphone coupled to the audio input of the remote control.

Douglas teaches a multi-function voice controlled hospital bed where the remote control unit is a headset with a microphone (col. 6, lines 15-20).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup, Kroon and Chang so that the remote control unit is a headset as taught by Douglas because it would allow a person with a disability control the system without having to hold the remote control unit.

12. Claims 4-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luchaup in view of Kroon and taken in further view of Chang and Mignot, cited in the previous action.

As per claims 4-6, Luchaup teaches a display device, coupled to the electronic device for displaying a control menu (remote appliance is a television which would have a display, paragraph 11).

Luchaup, Kroon and Chang do not teach the utterance is translated by the relay unit into a menu navigation control parameter that causes the electronic device to navigate the displayed control menu, the navigation of the menu is displayed on the display device in response to the electronic device receiving menu navigation control parameter and the received navigation control parameter is displayed on the display device.

Mignot teaches the utterance is translated by the relay unit into a menu navigation control parameter that causes the electronic device to navigate the displayed control menu (transform into a command which will be executed by the circuits, col. 4, lines 4-11 and navigates menu with voice commands, col. 4, lines 46-53)

the navigation of the menu is displayed on the display device in response to the electronic device receiving menu navigation control parameter (moving up and down within the menu on the screen, col. 4, lines 46-53); and

the received navigation control parameter is displayed on the display device (user utters "zoom" and the corresponding window with a header of "Zoom" is displayed on the screen, col. 4, lines 53-58).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup, Kroon and Chang to use the control parameter to navigate a displayed control menu on the display device because, as taught by Mignot, it would ensure the user knows the possible functional features of the system (col. 1, lines 47-54).

13. As per claim 9, Luchaup teaches the receiver of the remote control unit is configured to receive menu data from the transmitter of the relay unit (remote control comprises a user interface to correct recognition mistakes received from the host system, paragraph 34).

Luchaup, Kroon and Chang do not teach the transmitter of the remote control unit is configured to provide transmission signals representing utterances for selecting a menu option.

Mignot teaches the utterance is translated by the relay unit into a menu navigation control parameter that causes the electronic device to navigate the displayed control menu (transform into a command which will be executed by the circuits, col. 4, lines 4-11 and navigates menu with voice commands, col. 4, lines 46-53).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup, Kroon and Chang to provide transmission signals representing utterances for selecting a menu option because, as taught by Mignot, it would ensure the user knows the possible functional features of the system (col. 1, lines 47-54).

14. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luchaup in view of Allen et al. (U.S. Pat Pub. 2002/0149705A1) and taken in further view of Mignot.

Luchaup teaches a remote control system for translating an utterance of an operator to a control parameter of an electronic device comprising:

a remote control unit (Fig. 1, element 10), including,

i. an audio input for receiving the utterance (microphone, paragraph 32); and

ii. a transmitter operably linked to the audio input for providing a transmission signal corresponding to the utterance (transmits an audio input signal, paragraph 25);

iii. a receiver for receiving menu data from the transmitter of the relay unit (remote control comprises a user interface to correct recognition mistakes received from the host system, paragraph 34).

a relay station separate from the remote control unit and electronic device, responsive to the transmission (Fig. 1, element 50), the relay station including,

i. a receiver for recovering audio signals representing the utterance from the transmission signal (audio input signal is received by the host receiver, paragraph 26);

ii. a speech recognition module for translating the audio signals into a sequence of words (voice recognition processor, paragraph 26);

iii. a memory for translating the sequence of words into the control parameter which is then provided to the electronic device (voice recognizer generates a command signal from the audio input signal, this process would inherently have a some type of correspondence table in memory to convert from a recognized word to a command, paragraph 26);

iv. a transmitter which provides the control parameters to the respective electronic device (control signal is transmitted directly to the appliance from the host system, paragraph 31).

Luchaup does not teach the relay station has a communications transceiver configured to contact a remotely located party, wherein the receiver and transmitter of the remote control unit are configured to voice receive signals from the communications transceiver and to provide voice signals to the communications transceiver to utilize the

communication transceiver of the relay unit to communicate with the remotely located party through a telecommunications line.

Allen teaches a system for remotely operating a television set through a set top box wherein the set top box facilitates two-way voice communication between the user and a remote recipient through a telephone network (paragraphs 21, 22, and 38-41).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup so the relay station has a communications transceiver configured to contact a remotely located party because, as taught by Allen, it would allow the user to communicate remotely with another party without leaving the television view area (paragraph 9).

Luchaup and Allen do not teach the transmitter of the remote control unit is configured to provide transmission signals representing utterances for selecting a menu option.

Mignot teaches the utterance is translated by the relay unit into a menu navigation control parameter that causes the electronic device to navigate the displayed control menu (transform into a command which will be executed by the circuits, col. 4, lines 4-11 and navigates menu with voice commands, col. 4, lines 46-53).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup and Allen to provide transmission signals representing utterances for selecting a menu option because, as taught by Mignot, it would ensure the user knows the possible functional features of the system (col. 1, lines 47-54).

15. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luchaup in view of Kroon and taken in further view of Chang and Kolde et al. (U.S. Pat. 6,559,866).

Luchaup teaches a remote control system for translating an utterance of an operator to a control parameter of an electronic device comprising:

a remote control unit (Fig. 1, element 10), including,

i. an audio input for receiving the utterance (microphone, paragraph 32); and

ii. a transmitter operably linked to the audio input for modulating and providing a transmission signal corresponding to the utterance (transmits an audio input signal hence inherently modulating it, paragraph 25);

a relay station separate from the remote control unit and electronic device, responsive to the transmission (Fig. 1, element 50), the relay station including,

i. a receiver for recovering audio signals representing the utterance from the transmission signal (audio input signal is received by the host receiver, paragraph 26);

ii. a speech recognition module which translates the utterance of the operator into the control parameter (voice recognizer generates a command signal from the audio input signal, paragraph 26); and

iii. means for transmitting the control parameter to the electronic device (control signal is transmitted directly to the appliance from host system,

paragraph 31) and transmitting feedback to the remote control unit (transmits control signal to remote control, paragraph 26).

Luchaup does not teach compressing the utterance at the remote control unit and decompressing the utterance at the relay station.

Kroon teaches a system for speech command recognition that compresses the speech input at the transmission system, then decompresses the signal at the receiver for speech recognition and subsequently forwards the recognized speech to a voice operated system (col. 8, line 13 to col. 10, line 2 and Figs. 3(a) and 3(b)).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup to compress the utterance at the transmission unit and decompress the utterance at the receiver as taught by Kroon because it reduce the amount of information sent hence decreasing transmission time.

Kroon teaches an analog to digital converter for digitizing the utterance and subsequently compressing and coding the digitized utterance (Fig. 3(a), elements 310, 325 and 330) but neither Luchaup nor Kroon teach the codec compresses the utterance directly from an analog to digital converter.

Chang teaches a system for communications between a remote control device and an electronic device (television) wherein the voice input is directly ADPCM coded after the A/D conversion (Fig. 2, elements 26 and 28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup and Kroon to directly compress the digitized utterance as taught by Chang because this would cut out the intermediary steps of the

transmission cycle hence reducing calculations and giving a lower transaction cost to the transmission.

Luchaup, Kroon and Chang do not teach receiving feedback signals from the electronic device to provide audio prompts to a user to select one of a plurality of menu options.

Kolde teaches a remote control that receives feedback signals from the electronic device that generates an audible output to inform the user how to respond (col. 5, lines 21-28 and col. 10, lines 43-53).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Luchaup, Kroon and Chang to receive feedback signals from the electronic device to provide audio prompts to a user to select one of a plurality of menu options as taught by Kolde because it would ensure a user with disabilities would know the options available at any given time.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ogasawara teaches a system for transmitting voice from a remote control to a set top box wherein the voice is coded directly from the digitized utterance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Sked whose telephone number is (571) 272-7627. The examiner can normally be reached on Mon-Fri (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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